AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1. (*Currently Amended*) A method of routing between a source node and a destination

node in a network having nodes connected by links, wherein at least one link uses signal

compression and the remaining links do not use signal compression, wherein the method

comprises:

performing at least two routing calculations for a maximum number of links using signal

compression, said routing calculations comprising a first routing calculation for a number of

links using signal compression that is less than said maximum number, and a second routing

calculation for said maximum number of links using signal compression using information

obtained from the first routing calculation, and

selecting a route between said source node and said destination node based on results

from said routing calculations.

2. (*Previously Presented*) The method according to claim 1, wherein the method further

comprises choosing a cost function and wherein the routing calculations minimize the cost

function.

3. (*Currently Amended*) The method according to claim 1, wherein a routing calculation comprises, at a node where the number of links using signal compression from the source node is equal to the maximum number, seeking and saving ~~for a subsequent routing calculation~~ adjacent links on which signal compression is used for a subsequent routing calculation.

4. (*Currently Amended*) The method according to claim 1, wherein a routing calculation for a given number of links that use signal compression ~~compressions~~ uses the Dijkstra algorithm and verifies the number of links using signal compression ~~compressions~~ when adding a node to the route.

5. (*Currently Amended*) A method of routing between a source node and a destination node in a network having nodes connected by links, wherein at least one link uses signal compression and the remaining links do not use signal compression and the network further comprises overflow links to an external network, wherein the method comprises:

performing at least two routing calculations for a maximum number of links using signal compression, said routing calculations comprising a first routing calculation for a number of links using signal compression that is less than said maximum number, and a second routing calculation for said maximum number of links using signal compression using information obtained from the first routing calculation, ~~The method according to claim 1, wherein the network further comprises overflow links to an external network, said method further comprises~~

performing at least two overflow routing calculations for a maximum number of overflow

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links ~~overflows~~ and for the maximum number of <u>links using</u> signal <u>compression</u>~~compressions~~,

said overflow routing calculations comprising a first overflow routing calculation for a number

of overflows less than said maximum number of <u>overflow links</u>~~overflows~~, and a second overflow

routing calculation for ~~a~~ the maximum number of <u>overflow links</u> ~~overflows~~ and the maximum

number of links using signal compression using information obtained from said first overflow

routing calculation<u>, and</u>

<u>selecting a route between said source node and said destination node based on results</u>

<u>from said routing calculations</u>.

6. (*Currently Amended*) The method according to claim 5, wherein the method further

comprises choosing a cost function representative of the cost of <u>the overflow links</u> ~~overflows~~ and

wherein the routing calculations minimize the cost function.

7. (*Currently Amended*) The method according to claim 5, wherein the routing

calculations are effected for a given number of <u>overflow links</u> ~~overflows~~ by varying the number

of links using signal compression and then by varying the number of <u>overflow links</u>~~overflows~~.

8. (*Previously Presented*) The method according to claim 6, wherein the cost function

accounts for occupancy of resources in the network.

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9. (*Currently Amended*) The method according to claim 8, wherein the cost function accounts for charges incurred because of the overflow links~~overflows~~.

10. (*Currently Amended*) A method of routing between a source node and a destination node in a network having nodes connected by links, wherein at least one link uses signal compression and the remaining links do not use signal compression, wherein the method comprises:

performing a first routing calculation with links that do not use signal compression;

performing a second routing calculation for a number of links using signal compression that is less than a maximum number of signal compressions; ~~and~~

performing a third routing calculation for the maximum number of links using signal compression compressions using information obtained from the first and second routing calculations, and

selecting a route between said source node and said destination node based on results from said routing calculations.

11. (*Previously Presented*) The method according to claim 10, wherein the method further comprises choosing a cost function and wherein the routing calculations minimize the cost function.

12. (*Currently Amended*) The method according to claim 10, wherein a routing

calculation for a given number of links using signal compression ~~compressions~~ comprises, at a

node where the number of links using signal compression from the source node is equal to the

maximum number, seeking and saving ~~for a subsequent routing calculation~~ adjacent links on

which signal compression is used for a subsequent routing calculation.

13. (*Currently Amended*) The method according to claim 10, wherein a routing

calculation for a given number of links using signal compression ~~compressions~~ uses the Dijkstra

algorithm and verifies the number of links using signal compression ~~compressions~~ when adding

a node to the route.

14. (*Currently Amended*) A method of routing between a source node and a destination

node in a network having nodes connected by links, wherein at least one link uses signal

compression and the remaining links do not use signal compression and the network further

comprises overflow links to an external network, wherein the method comprises:

performing a first routing calculation with links that do not use signal compression;

performing a second routing calculation for a number of links using signal compression

that is less than a maximum number of signal compressions;

performing a third routing calculation for the maximum number of links using signal

compression compressions using information obtained from the first and second routing

calculation; ~~The method according to claim 10, wherein the network further comprises overflow~~

~~links to an external network, said method further comprises:~~

a fourth routing calculation for a number of <u>overflow links</u> ~~overflows~~-less than a

maximum number of <u>overflow links</u>~~overflows~~; ~~and~~

a fifth routing calculation for the maximum number of <u>overflow links</u> ~~overflows~~-and the

maximum number of links using signal compression using information obtained from said fourth

routing calculation<u>, and</u>

<u>selecting a route between said source node and said destination node based on results</u>

<u>from said routing calculations</u>.

15. (*Currently Amended*) The method according to claim 14, wherein the method further

comprises choosing a cost function representative of the cost of <u>the overflow links</u> ~~overflows~~-and

wherein the routing calculations minimize the cost function.

16. (*Currently Amended*) The method according to claim 14, wherein the routing

calculations are effected for a given number of <u>overflow links</u> ~~overflows~~-by varying the number

of links using signal compression and then by varying the number of <u>overflow links</u>~~overflows~~.